

ABSTRACT

A method and system for use in a wireless-local-area network (WLAN), for simultaneously estimating the unknown multi-path channel and noise characteristics and using the channel and noise estimates to improve system performance in the presence of narrowband interferers. Estimates are made for the unknown multi-path channel and noise characteristic without a-priori knowledge of the location of the interference in the band and this information is used to generate soft-metrics for a Viterbi decoder. By using the improved channel and noise estimates, the packet error rate (PER) of an 802.11g WLAN system may be maintained despite collisions with interfering packets thereby allowing the 802.11g system to be less sensitive to the interference.